

WHAT IS CLAIMED IS:

1. An optical module apparatus comprising:
 - a first optical element and a first member which holds the first optical element;
 - 5 a second optical element placed near the first optical element and a second member which holds the second optical element; and
 - a plurality of wedges arranged at a plurality of positions between the first member and the second member to hold the relative positions of the first optical element and the second optical element.
- 10 2. An optical module apparatus according to claim 1, wherein the first member and the second member are arranged at positions where the loss of the light beam radiated from the first optical element to the second optical element is minimum, then the wedges are fixedly inserted in at least a plurality of positions in the space between the first member and the second member.
- 15 20 3. An optical module apparatus according to claim 1, wherein the light beam radiated from the first optical element and emitted from the second optical element is detected by a sensor while moving at least selected one of the first member and the second member so that the first member and the second member are arranged at a position of a minimum loss of the light beam radiated on the second optical element, then the

wedges are fixedly inserted in at least a plurality of positions in the space between the first member and the second member thereby to maintain the relative positions of the first optical element and the second optical element.

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4. An optical module apparatus according to claim 1, wherein the first optical element is a semiconductor laser and the second optical element is an optical waveguide which receives the laser beam from 10 the semiconductor laser.

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5. An optical module apparatus according to claim 1, wherein the first optical element is a semiconductor laser and the second optical element is a lens unit which receives the laser beam from the 15 semiconductor laser.

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6. An optical module apparatus according to claim 1, wherein a plurality of the wedges fixedly hold the second member.

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7. An optical module apparatus according to claim 1, further comprising:

a third optical element placed near the second optical element and a third member which holds the third optical element; and

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a plurality of second wedges arranged at a plurality of positions between the second member and the third member which maintains the relative positions of the second optical element and the third optical

element.

8. An optical module apparatus according to
claim 1, wherein a plurality of the wedges regulate the
space between the first member and the second member in
the direction parallel to the optical axis along the
light path between the first optical element and the
second optical element thereby to maintain the relative
positions of the first optical element and the second
optical element.

10 9. A method of fabricating an optical module
apparatus, comprising:

arranging a second optical element and a second
member which holds the second optical element,
relatively to a first optical element and a first
15 member which holds the first optical element in such a
manner that the second member is moved while at the
same time monitoring the optical efficiency between the
first optical element and the second optical element,
thereby arranging the second member at a position
20 associated with the optimum optical efficiency; and

inserting a plurality of wedges at a plurality of
positions, respectively, between the first member and
the second member and fixing the wedges at positions
associated with the optimum optical efficiency.

25 10. The method according to claim 9, wherein the
wedges are fixed in such a manner that after inserting
the wedges, an ultraviolet-cured resin is dripped, and

then the ultraviolet rays are radiated thereby to cure the ultraviolet-cured resin.

11. The method according to claim 9, wherein the first optical element is a semiconductor laser and the
5 second optical element is an optical waveguide which receives a laser beam from the semiconductor laser.

12. A projection television comprising:
a light source including a semiconductor laser, a
first member which holds the semiconductor laser, a
10 lens unit which is arranged near the semiconductor laser and receives the laser beam from the semiconductor laser, a second member which holds the lens unit, and a holding member having a plurality of wedges arranged at a plurality of positions between the
15 first member and the second member thereby to maintain the relative positions of the semiconductor laser and the lens unit; and

20 a display which displays an image based on the video information supplied thereto, using the light beam radiated from the light source.

13. An optical module apparatus comprising:
a first means for holding a first optical element;
a second means for holding a second optical
element placed near the first optical element; and
25 a plurality of wedge means for holding the relative positions of the first optical element and the second optical element, by arranging at a plurality of

positions between the first means and the second means.

14. An optical module apparatus according to
claim 13, wherein the first means and the second means
are arranged at positions where the loss of the light
5 beam radiated from the first optical element to the
second optical element is minimum, then the wedge means
are fixedly inserted in at least a plurality of
positions in the space between the first means and the
second means.

10 15. An optical module apparatus according to
claim 13, wherein the light beam radiated from the
first optical element and emitted from the second
optical element is detected by a sensor while moving at
least selected one of the first means and the second
means so that the first means and the second means are
15 arranged at a position of a minimum loss of the light
beam radiated on the second optical element, then the
wedge means are fixedly inserted in at least a
plurality of positions in the space between the first
means and the second means thereby to maintain the
relative positions of the first optical element and the
20 second optical element.

25 16. An optical module apparatus according to
claim 13, wherein the first optical element is a
semiconductor laser and the second optical element is
an optical waveguide which receives the laser beam from
the semiconductor laser.

17. An optical module apparatus according to
claim 13, wherein the first optical element is a
semiconductor laser and the second optical element is a
lens unit which receives the laser beam from the
semiconductor laser.

5 18. An optical module apparatus according to
claim 13, wherein a plurality of the wedge means
fixedly hold the second means.

10 19. An optical module apparatus according to
claim 13, further comprising:

a third means for holding a third optical element
placed near the second optical element; and

15 a plurality of second wedge means for maintaining
the relative positions of the second optical element
and the third optical element, by arranged at a
plurality of positions between the second means and the
third means.

20 20. An optical module apparatus according to
claim 13, wherein a plurality of the wedge means
regulate the space between the first means and the
second means in the direction parallel to the optical
axis along the light path between the first optical
element and the second optical element thereby to
maintain the relative positions of the first optical
25 element and the second optical element.